

REMARKS

Forty-four claims are pending in the present Application. Claims 1-44 currently stand rejected. Claims 1, 21, and 43 are amended herein. Reconsideration of the Application in view of the foregoing amendments and the following remarks is respectfully requested.

35 U.S.C. § 102(b)

In paragraph 6 of the Office Action, the Examiner rejects claims 43 and 44 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,349,687 to Ehlig et al. (hereafter Ehlig). The Applicants respectfully traverse these rejections for at least the following reasons.

“For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be *identically* shown in a single reference.” *Diversitech Corp. v. Century Steps, Inc.*, 7 USPQ2d 1315, 1317 (CAFC 1988). The Applicants submit that Ehlig fails to identically teach every element of the claims, and therefore does not anticipate the present invention.

Regarding the Examiner’s rejection of independent claim 43, Applicants respond to the Examiner’s §102 rejection as if applied to amended claim 43 which now recites executing current processes sequentially with a processor “*while said context control module simultaneously preloads isochronous context data needed for executing subsequent processes*” which are limitations that are not taught or suggested either by the cited reference, or by the Examiner’s citations thereto.

Ehlig teaches “first and second registers connected to concurrently store identical information during one of the processing contexts, said first register connected to individually participate . . . in a next of the processing contexts . . . thereby enabling the second register to retain said information from one processing context” (column 67, lines 49-58) (emphasis added). In contrast, Applicants teach and claim registers that store different information. Applicants therefore submit that Ehlig teaches away from Applicants’ claimed invention.

In addition, Applicants teach and claim executing current processes sequentially with a processor “while said context control module simultaneously preloads context data needed for executing subsequent processes.” Applicants submit that Ehlig fails to teach preloading data for a future process while simultaneously executing a current process. For at least the foregoing reasons, Applicants submit that Ehlig does not anticipate Applicants claimed invention.

With regard to claim 44, “means-plus-function” language is utilized to recite elements and functionality similar to those recited in claim 43 discussed above. Applicants therefore incorporate those remarks by reference with regard to claim 44. In addition, the Courts have frequently held that “means-plus-function” language, such as that of claim 44, should be construed in light of the Specification. More specifically, means-plus-function claim elements should be *construed to cover the corresponding structure, material or acts described in the specification*, and equivalents thereof. Applicants respectfully submit that, in light of the substantial differences between the teachings of Ehlig and Applicants’

invention as disclosed in the Specification, claim 44 is therefore not anticipated or made obvious by the teachings of Ehlig.

Because a rejection under 35 U.S.C. §102 requires that every claimed limitation be *identically* taught by a cited reference, and because the Examiner fails to cite Ehlig to identically teach or suggest the claimed invention, Applicants respectfully request reconsideration and allowance of claims 43 and 44 so that these claims may issue in a timely manner.

35 U.S.C. § 103

In paragraph 12 of the Office Action, the Examiner rejects claims 1 and 21 under 35 U.S.C. § 103 as being unpatentable over Ehlig in view of U.S. Patent No. 6,029,242 to Sidman (hereafter Sidman). The Applicants respectfully traverse these rejections for at least the following reasons.

Applicants maintain that the Examiner has failed to make a *prima facie* case of obviousness under 35 U.S.C. § 103(a) which requires that three basic criteria must be met, as set forth in M.P.E.P. §2142:

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

The initial burden is therefore on the Examiner to establish a *prima facie* case of

obviousness under 35 U.S.C. § 103(a).

Regarding the Examiner's rejection of independent claims 1 and 21, Applicants respond to the Examiner's §103 rejection as if applied to amended claims 1 and 21 which now recite executing current processes sequentially with a processor *"while said context control module simultaneously preloads isochronous context data needed for executing subsequent processes"* which are limitations that are not taught or suggested either by the cited reference, or by the Examiner's citations thereto.

With regard to the rejections of claims 1 and 21, the Examiner concedes that "Ehlig did not expressly teach a system having a processor that sequentially executes current processes while said context module simultaneously preloads context data needed for executing subsequent processes." Applicants concur. The Examiner then points to Sidman to purportedly remedy these deficiencies. and concludes that "[i]t would have been obvious . . . to modify the system of

Sidman teaches a "datapath interconnect system" for allowing multiple processors to process data stored in multiple register banks without having to move the data (see column 2, line 46 through column 3, line 34). In particular, Sidman states that "[a] major advantage . . . is the reduction in the number of data transfers between register banks" (column 3, lines 67-68). Sidman is therefore specifically directed towards a system that provides data to multiple processors by utilizing a specialized datapath interconnect system. In contrast, Applicants recite a single "processor" in claims 1 and 2, and do not require the complicated datapath interconnect system taught by Sidman.

Furthermore, Applicants submit that Sidman nowhere discloses performing a “context switching procedure” as claimed by Applicants. In addition, Applicants submit that neither Ehlig nor Sidman disclose concurrently preloading “isochronous context data”, as recited by Applicants in claims 1 and 21.

For at least the foregoing reasons, the Applicants submit that claims 1 and 21 are not unpatentable under 35 U.S.C. § 103 over Ehlig in view of Sidman, and that the rejections under 35 U.S.C. § 103 are thus improper. The Applicants therefore respectfully request reconsideration and withdrawal of the rejections of claims 1 and 21 under 35 U.S.C. § 103.

In paragraph 20 of the Office Action, the Examiner rejects claims 2-20 and 22-42 under 35 U.S.C. § 103 as being unpatentable over Ehlig in view of Sidman, and further in view of U.S. Patent No. 5,815,678 to Hoffman et al. (hereafter Hoffman). The Applicants respectfully traverse these rejections for at least the following reasons.

Applicants maintain that the Examiner has failed to make a *prima facie* case of obviousness under 35 U.S.C. § 103(a). As discussed above, for a valid *prima facie* case of obviousness under 35 U.S.C. § 103(a), the prior art references when combined must teach or suggest all the claim limitations." The initial burden is on the Examiner to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Regarding the Examiner's rejection of dependent claims 2-20 and 22-42, for at least the reasons that these claims are directly or indirectly dependent from

respective independent claims whose limitations are not identically taught or suggested, the limitations of these dependent claims, when viewed through or in combination with the limitations of the respective independent claims, are also not identically taught or suggested. Applicants therefore respectfully request reconsideration and allowance of dependent claims 2-20 and 22-42, so that these claims may issue in a timely manner.

In addition, with regard to the rejections of claims 2-20 and 22-40, the Examiner concedes that “Ehlig and Sidman did not expressly teach a system wherein said first concurrent context and said second concurrent context support isochronous processes.” Applicants concur. The Examiner then points to Hoffman to purportedly remedy these deficiencies, and concludes that “[i]t would have been obvious . . . to modify the system of Ehlig and Sidman with the teachings of Hoffman to support isochronous processes”

The Court of Appeals for the Federal Circuit has held that “obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination.” In re Geiger, 815 F.2d 686, 688, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987). Applicants submit that the cited references do not suggest a combination that would result in Applicants’ invention, and therefore the obviousness rejection under 35 U.S.C §103 is improper.

Applicants respectfully submit that a *general restatement of the advantages disclosed by the Applicants* deriving from implementation of the present invention cannot act as the required teaching or suggestion to combine cited references for

a proper rejection under 35 U.S.C. § 103. Courts have repeatedly held that “it is impermissible . . . simply to engage in *hindsight reconstruction* of the claimed invention, using the Applicants’ structure as a template and selecting elements from references to fill in the gaps.” In re Gorman, 18 USPQ 1885, 1888 (CAFC 1991).

For at least the foregoing reasons, the Applicants submit that claims 2-20 and 22-42 are not unpatentable under 35 U.S.C. § 103 over Ehlig and Sidman in view of Hoffman, and that the rejections under 35 U.S.C. § 103 are thus improper. The Applicants therefore respectfully request reconsideration and withdrawal of the rejections of claims 2-20 and 22-42 under 35 U.S.C. § 103.

In paragraph 46 of the Office Action, the Examiner rejects claims 1-44 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,613,114 to Anderson et al. (hereafter Anderson) in view of U.S. Patent No. 6,519,265 to Liu et al. (hereafter Liu). The Applicants respectfully traverse these rejections for at least the following reasons.

Applicants maintain that the Examiner has failed to make a *prima facie* case of obviousness under 35 U.S.C. § 103(a). As discussed above, for a valid *prima facie* case of obviousness under 35 U.S.C. § 103(a), the prior art references when combined must teach or suggest all the claim limitations." The initial burden is on the Examiner to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Regarding the Examiner's rejection of independent claims 1, 21, and 43, Applicants respond to the Examiner's §103 rejection as if applied to amended claims 1, 21, and 43 which now recite executing current processes sequentially with a processor "*while said context control module simultaneously preloads isochronous context data needed for executing subsequent processes*" which are limitations that are not taught or suggested either by the cited reference, or by the Examiner's citations thereto.

Applicants respectfully traverse the Examiner's assertion that modification of the device of Anderson according to the teachings of Liu would produce the claimed invention. Applicants submit that Anderson in combination with Liu fail to teach a substantial number of the claimed elements of the present invention. Furthermore, Applicants also submit that neither Anderson nor Liu contain teachings for combining the cited references to produce the Applicants' claimed invention. The Applicants therefore respectfully submit that the obviousness rejections under 35 U.S.C §103 are improper.

With regard to the rejections of claims 1-44, the Examiner concedes that "Anderson did not expressly teach a main context that is configured to support system execution tasks and a context module that controls switching procedures between main context and other concurrent contexts." Applicants concur. The Examiner then points to Liu to purportedly remedy these deficiencies. Applicants respectfully disagree with the Examiner's interpretation of the teachings of Liu.

Liu teaches "a memory configured to store instruction modules, each instruction module corresponding to a context" Liu further teaches a

“control state machine that selects one of the instruction modules for execution.” Liu is therefore directed towards modules that store program instructions, and not the “context data” that is recited in claims 1, 21, and 43. Furthermore, Applicants submit that neither Anderson nor Liu teach executing current processes sequentially with a processor “*while said context control module simultaneously preloads context data needed for executing subsequent processes,*” as claimed by Applicants.

With regard to claim 44, “means-plus-function” language is utilized to recite elements and functionality similar to those recited in claims 1 and 21 discussed above. Applicants therefore incorporate those remarks by reference with regard to claim 44. In addition, the Courts have frequently held that “means-plus-function” language, such as that of claim 44, should be construed in light of the Specification. More specifically, means-plus-function claim elements should be *construed to cover the corresponding structure, material or acts described in the specification*, and equivalents thereof. Applicants respectfully submit that, in light of the substantial differences between the cited references and Applicants’ invention as disclosed in the Specification, claim 44 is therefore not anticipated or made obvious by the teachings of the cited references.

Regarding the Examiner’s rejection of dependent claims 2-20 and 22-42, for at least the reasons that these claims are directly or indirectly dependent from respective independent claims whose limitations are not identically taught or suggested, the limitations of these dependent claims, when viewed through or in combination with the limitations of the respective independent claims, are also

not identically taught or suggested. Applicants therefore respectfully request reconsideration and allowance of dependent claims 2-20 and 22-42, so that these claims may issue in a timely manner.

For at least the foregoing reasons, the Applicants submit that claims 1-44 are not unpatentable under 35 U.S.C. § 103 over Anderson in view of Liu, and that the rejections under 35 U.S.C. § 103 are thus improper. The Applicants therefore respectfully request reconsideration and withdrawal of the rejections of claims 1-44 under 35 U.S.C. § 103.

Krivacek Reference

In paragraphs 54 and 55 of the Office Action, the Examiner briefly cites a reference to “Krivacek” (hereafter Krivacek), stating that “[i]t would have been obvious . . . to modify the context switching system of Anderson and Liu with the teaching of Krivacek.” However, nowhere in the entire Office Action does the Examiner relate the purported teachings of Krivacek to any specific claims presented by Applicants.

The Applicants have reviewed the cited sections of Krivacek and find no relevance, at either column 8, lines 28-39, or at column 9, lines 47-59, with respect to Applicants’ claimed invention. Applicants therefore respectfully request the Examiner to clarify the particular relevance of the teachings of Krivacek to Applicants’ claimed invention. In particular, Applicants request the Examiner to connect cited teachings of Krivacek to specific claimed limitations in Applicants claims, so that Applicants may respond in an appropriate manner.

Examiner Interview Summary

On June 30, 2005, Applicants' representative, Gregory Koerner, held an Examiner's Interview with Examiner Jenny Phan to discuss various differences between the cited references and Applicants' claimed invention. For example, Applicants argued that neither Ehlig, Sidman, nor Hoffman teach preloading "isochronous context data" while concurrently processing other isochronous data, as recited in independent claims 1, 21, and 43. In addition, Applicants also argued that neither Anderson nor Liu disclose preloading "isochronous context data" while concurrently processing other isochronous data, as recited in independent claims 1, 21, and 43.

Summary

Applicants submit that the foregoing amendments and remarks overcome the Examiner's rejections. Because the cited references, or the Examiner's citations thereto, do not teach or suggest the claimed invention, and in light of the differences between the claimed invention and the cited prior art, Applicants therefore submit that the claimed invention is patentable over the cited art, and respectfully request the Examiner to allow claims 1-44 so that the present Application may issue in a timely manner. If there are any questions concerning this Response, the Examiner is invited to contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,

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By: 

Gregory J. Koerner, Reg. No. 38,519
Redwood Patent Law
1291 East Hillsdale Blvd., Suite 205
Foster City, CA 94404
Tel: (650) 358-4000